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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/546,993	04/11/2000	David Philip Tong	P2807	4578

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EXAMINER	
FOULADI SEMNANI, FARANAK	
ART UNIT	**PAPER NUMBER**
2672	17

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

KS

Office Action Summary	Application No.	Applicant(s)	
	09/546,993	TONG, DAVID PHILIP	
	Examiner	Art Unit	
	Faranak Fouladi	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 June 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☒ Interview Summary (PTO-413) Paper No(s). *16* .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Reopening of Prosecution After Appeal

1. In view of the appeal brief filed on 06/26/03, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

2. Whether appellant elects to continue prosecution or to request reinstatement of the appeal, since prosecution is reopened prior to a decision on the merits by the Board of Patent Appeals and Interferences, the fee paid for the notice of appeal, appeal brief, and request for oral hearing (if applicable) will be applied to a later appeal on the same application.

3. Claims 1, 3-8 are pending in the case, with claims 1, 3 and 6 being independent.

4. Claim 2 is cancelled.

5. The present title of the application is "Method and Computer Program Product for Reducing Colormap Flashing" (as originally filed).

6. This action is made Final.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1, 3-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young US Patent 5,703,627 and further in view of Aschenbrenner et al. [US Patent 5,406,310].

9. Regarding Independent claim 1 the below element-by-element analysis and comparison of claim 1 to Young's reference is provided to show Young's anticipation of claim 1.

Independent Claim 1	US Patent No. 5,703,627 to Young
1. A method of reducing colormap flashing on a display system, the display system having a frame buffer which provides a single hardware colormap, the method comprising the steps of:	A method for reducing color flashing by performing residual color allocation and default colormap sharing in a computer system that employs a default colormap to display color. (Abstract Lines 1-3) The hardware color table functions to store a software colormap. (Col. 3 lines 55-56)
intercepting a request from an application program for an allocation of a private colormap; and	When a client requires read-write access to more color cells than there are free cells in the default colormap, the client creates a colormap for private use (Col. 1 lines 53-55)
transparently simulating the allocation of the private colormap using a default colormap, wherein the default colormap is retained in the frame buffer during the simulating and the simulating **includes allocating a secondary lookup table for storing information received from the application program relating to the intercepted request**; and	Examiner's interpretation of the transparently simulating the allocation of the private colormap is: creating a secondary lookup table for storing information regarding requested private colors. Young teaches that the client creates a colormap for private use. (Col. 1 lines 53-55) (the same as allocating a secondary lookup table).
wherein said step of transparently simulating the allocation of a private colormap further comprises: storing in the secondary lookup table information received from said application program relating to one or more requested colors privately allocated by said application program;	The client then stores **colors it needs** (received information relating to the request) into any cell of the private colormap (secondary colormap) col. 4 line 31-43). Young does not teach that default colormap is swapped by the above action. Therefore the default colormap is retained in the frame buffer during the process.
performing a closest match of said requested color to a color stored in said default colormap; and	Aschenbrenner et al. disclose in col. 6 lines 22-31 and col. 6 lines 48-51 the process of finding the closest color match of requested color to a color stored in default colormap and returning said closest match to said application. It would have been obvious to an ordinary person skilled in the art at the time of invention to combine the method for reducing color flashing of Young with the closest color matching of Aschenbrenner et al. to be able to always find a color for the image colors even if the colormap is full (always satisfying the request for a private colormap).
returning said closest match to said application program.	

Young disclose "transparently simulating the allocation of the private colormap using a default colormap, wherein the simulating includes allocating a secondary

lookup table" by "creating an indexed private colormap (secondary lookup table) and copying the private color cell to default colormap and then employing default colormap to satisfy the request for private colormap". Young fails to disclose or teach finding of a closest match of a requested color in a default colormap but Aschenbrenner et al. US Patent 5,406,310 (Managing Color Selection in Computer Display Window for Multiple Applications) teaches this feature or element.

Aschenbrenner's invention is directed to a method for managing color selection for windowing displays which display multiple computer program applications on a single computer screen. The object of Aschenbrenner's invention is also to eliminate, or minimize the screen flashing in windowing displayes.

It would be obvious to a person skilled in the art to add Aschenbrenner's element (finding the closest match) to Young's invention to satisfy the request for the private colormap using the default colormap at all the time.

10. Claims 3, and 4 recite a computer-readable medium storing a computer usable code storage medium for executing the method of claim 1. It is inherent to have a computer readable media to store or transport computer readable code in a computer system. For example compact disc has been included and used in the computer systems since 1990s or magnetic data storage devices have been used since 1980s.

11. Regarding dependent claim 5, "the method of claim 1, comprising the step of determining whether a private color cell has been requested by the application program and writing said private color cell to the default colormap." Young discloses in col. 5 lines 3-5 that color values from private color map being copied into free cells of a shared default map.

12. Regarding dependent claim 7, "the method of claim 1, further including prior to performing the storing, determining whether the requested color was for a read-only color cell, when determined not a read-only request, performing the storing and only performing the performing the closest match and the returning when a space is not available in the default colormap, and when determined a read-only request skipping the storing and performing the performing the closest match and the returning the closest match." Young in view of Aschenbrenner anticipate this feature.

Young disclose storing a not read-only color (read-write color) in col. 1 lines 49-56 and in col. 2 lines 42-47, but Young fails to disclose performing the closest match when space is not available in the default colormap. As discussed with reference to claim 1 Aschenbrenner disclose that.

It should be noted that a read-only cell may be shared amongst all of the clients, and according to operation 410 in Fig 4B and specification page 11 lines 4-8 user force the application to use the closest matching color and this is what Aschenbrenner teach in col. 6 lines 22-31.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 6 and 8 are rejected under 35 U.S.C. 102 (b) as being anticipated by Young U.S. Patent No. 5,703,627.

15. The following side-by-side comparison of claim 6 to Young's reference is provided to clearly show Young's anticipation of claimed invention.

Independent Claim 6	US Patent No. 5,703,627 to Young
6. A method for reducing colormap flashing on a display system, the display system having a frame buffer which provides a single hardware colormap, the method comprising the steps of:	A method for reducing color flashing by performing residual color allocation and default colormap sharing in a computer system that employs a default colormap to display color. (Abstract Lines 1-3) The hardware color table functions to store a software colormap. (Col. 3 lines 55-56)
intercepting a request from an application program for an allocation of a private colormap;	When a client requires read-write access to more color cells than there are free cells in the default colormap (col. 1 lines 53-54). This is a request for private colormap.
transparently simulating the allocation of the private colormap using a default colormap, wherein the simulating includes allocating a secondary lookup table comprising entries mapped to entries in the default colormap; and	The first part means the default colormap is used to satisfy private colormap request, by allocating a secondary lookup table. Young teaches that the client creates a colormap for private use. (Col. 1 lines 53-55) (allocates a secondary lookup table). Since a colormap is an indexed look-up table (Col. 1 line 29-30) and index location is used to index directly into the color table (Col. 4 line 31-32), then the entries in the private lookup table are mapped to the entries in the shared default colormap by these references (Col. 4 lines 31-39). (Young disclose in the same column an example for indexing that states "If the color of an area within the screen, (such as background area 14, FIG. 1) is designated to be colorized by a given pixel index, then the color displayed for area 14 is whatever color is stored at that particular indexed location stored in the color table hardware of the computer system. For instance assume that area 14 is designated to be colorized with the color value stored at the pixel 3 index location."
determining whether a private color cell has been requested by the application program and writing said private color cell to the default colormap.	When a client requires read-write access to more color cells than there are free cells in the default colormap (request for private color cell), (Col. 1 lines 53-54). color values from the color cells in the client's private colormap are copied into the allocated read-write cells in the shared default colormap at corresponding index locations.(col. 2 lines 45-47).

The following paragraphs are analysis of 2nd step of claim 6.

Claim 6 claims, "transparently simulating the allocation of the private colormap using a default colormap".

Since "Simulating" means to create a representation or model of (a physical system or particular situation, for example), according to the American Heritage® Dictionary of the English Language, Fourth Edition Published by Houghton Mifflin Company, then "transparently simulating the allocation of the private colormap using a default colormap" means the default colormap is used to satisfy private colormap requests (Young disclose in abstract line 1-3).

Further claim 6 claims, "allocating a secondary lookup table comprising entries mapped to entries in the default colormap"; this is the same as creating a colormap (or an indexed lookup table) for private use. This indexed lookup table is called secondary lookup table by applicant.

16. Regarding independent claim 8, as with claim 6, the following comparison of claim 8 to Young's reference is provided to clearly show Young's anticipation of claimed invention.

Independent Claim 8	US Patent No. 5,703,627 to Young
8. A method of reducing colormap flashing on a display system, the display system having a frame buffer which provides a single hardware colormap, the method comprising the steps of:	A method for reducing color flashing by performing residual color allocation and default colormap sharing in a computer system that employs a default colormap to display color. (Abstract Lines 1-3) The hardware color table functions to store a software colormap. (Col. 3 lines 55-56)
intercepting a request from an application program for an allocation of a private colormap; and	When a client requires read-write access to more color cells than there are free cells in the default colormap, the client creates a colormap for private use. (Col. 1 lines 53-55)
transparently simulating the allocation of the private colormap using a default colormap, wherein the default colormap is retained in the frame buffer during the simulating and the simulating includes allocating a secondary lookup table for storing information received from the application program relating to the intercepted request;	The first part means the default colormap is used to satisfy private colormap request, by allocating a secondary lookup table. Young teaches that the client creates a colormap for private use. (Col. 1 lines 53-55) (allocates a secondary lookup table). The client then stores **colors it needs** (received information relating to the request) into any cell of the private colormap (secondary colormap) col. 4 line 31-43). Young does not teach that default colormap is swept out by the above action. Therefore the default colormap is retained in the frame buffer during the simulating.
wherein the simulating includes associating a cell in the secondary lookup table with a location of a cell in the default colormap and returning the location of the cell in the default colormap to the application program as a response to the intercepted request.	Since a colormap is an indexed look-up table (Col. 1 line 29-30) and index location is used to index directly into the color table (Col. 4 line 31-32), then the entries in the private lookup table are mapped to the entries in the shared default colormap through associated index locations (Col. 4 lines 31-39). For "returning the location of the cell in the default colormap as a response", Young disclose in col. 4 lines 31-36 by stating that "if the color of an area within the screen is designated to be colorized by a given pixel index, then the color displayed for area 14 is whatever color is stored at that particular indexed location stored in the color table hardware of the computer system". This means index location is returned as a response to the application's request for private color.

Response to Arguments

17. In view of the appeal brief filed on 06/26/03, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth above.

18. Response to the arguments is present in the body of rejection.

Conclusion

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Faranak Fouladi** whose telephone number is **703-305-3223.** The examiner can normally be reached on Mon-Fri from 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Razavi** can be reach at **703-305-4713**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC. 20231

Or faxed to: 703-872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, sixth-floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is 703-305-4750.

Faranak Fouladi-Semnani
Patent Examiner
Art Unit 2672

MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600